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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,064	12/04/2001	Michael Campbell	MBHB00-1257-B	9564

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EXAMINER	
RAO, DEEPAK R	
ART UNIT	PAPER NUMBER
1624	

DATE MAILED: 05/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/005,064	Applicant(s) Campbell et al.
	Examiner Deepak Rao	Art Unit 1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Dec 4, 2001*.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-63* is/are pending in the application.

4a) Of the above, claim(s) *14-27 and 48-61* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *9, 28-38, 44, and 62* is/are rejected.

7) ☒ Claim(s) *1-8, 10-13, 39-43, 45-47, and 63* is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claims 1-63 are pending in this application.

Election/Restriction

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 36-56, 62-63, 1-22 and 28-35, drawn to compounds of formula I wherein X^1, X^2 and X^3 are N, corresponding composition and method of use, classified in class 544, subclass 183+.

II. Claims 36, 57-63, 1 and 23-35, drawn to compounds of formula I wherein two of X^1, X^2, X^3 are N and the remaining one is carbon, corresponding composition and method of use, classified in class 544, subclass 242+.

III. Claims 36, 62-63, 1 and 28-35, drawn to compounds of formula I wherein one of X1, X2, X3 are N and the remaining two are carbons, corresponding composition and method of use, classified in class 546, subclass various.

The inventions are distinct, each from the other because of the following reasons: The compounds of Groups I-III are drawn to structurally dissimilar compounds. They are made independently and used independently. They would be expected to raise different issues of patentability if an triazinyl compound of Group I was anticipated, the anticipatory reference would not necessarily render obvious the other groups II-III or vice-versa. They are not art recognized equivalents, they are classified diversely from classes 544-546/various subclasses

(based on the various substituent groups) and require separate burdensome searches in the literature.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter and as shown by their different classification, restriction for examination purposes as indicated is proper.

Claims 1-63 are generic to a plurality of disclosed patentably distinct species comprising the species disclosed in the Examples. In addition to election of a group from above, applicant is required under 35 U.S.C. 121 to elect a single disclosed species falling within that group, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Mr. Blair Hughes on May 7, 2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-22, 28-56 and 62-63. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23-27 and 57-61 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Applicant's election of the species of Example 2 is acknowledged. The species represents a compound of Formula I wherein:

X^1, X^2 and X^3 are N;

A is a covalent bond;

R^1 and R^2 are H;

Z is S;

R^4 is pentyl;

m is 0, n and p are 1;

Y^2 is methylene;

T is -O-; and

R^3 is 4-*t*-butylphenyl.

The guidelines in MPEP § 803.02 provide that upon examination if prior art is found for the elected species, the examination will be limited to the elected species.

Content of MPEP § 803.02 is provided here for convenience:

> As an example, in the case of an application with a Markush-type claim drawn to the compound C-R, wherein R is a radical selected from the group consisting of A, B, C, D

> and E, the examiner may require a provisional election of a single species, CA, CB, CC, CD or CE. The Markush-type claim would then be examined fully with respect to the elected species and any species considered to be clearly unpatentable over the elected species. If on examination the elected species is found to be anticipated or rendered obvious by prior art, the Markush-type claim and claims to the elected species shall be rejected, and claims to the non-elected species would be held withdrawn from further consideration. As in the prevailing practice, **a second action on the merits on the elected claims would be final**.
> On the other hand, should no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim will be extended. If prior art is then found that anticipates or renders obvious the Markush-type claim with respect to a nonelected species, the Markush-type claim shall be rejected and claims to the nonelected species held withdrawn from further consideration. **The prior art search, however, will not be extended unnecessarily to cover all nonelected species**. Should applicant, in response to this rejection of the Markush-type claim, overcome the rejection, as by amending the Markush-type claim to exclude the species anticipated or rendered obvious by the prior art, the amended Markush-type claim will be reexamined. The prior art search will be extended to the extent necessary to determine patentability of the Markush-type claim. In the event prior art is found during the reexamination that anticipates or renders obvious the amended Markush-type claim, the claim will be rejected and the action made final. Amendments submitted after the final rejection further restricting the scope of the claim may be denied entry.

The elected species identically was not found in the prior art search and the search was expanded to the subgenus of Formula I wherein X^1, X^2 and X^3 are N; $N(R^2)(AR^1)$ is NH_2; Z is S; R^4 is alkyl; m is 0, n and p are 1; Y^2 is methylene; T is -O-; and R^3 is alkyl; and art was found. As per the guidelines of MPEP § 803.02, the Markush-type claims were examined to the extent of the searched subgenus. The non elected species and the generic subject matter drawn to the non elected species is withdrawn from further consideration. Accordingly, claims 14-22 and 48-56 are additionally withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected species.

Claim Rejections - 35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9, 28-35, 44 and 62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following reasons apply:

1. In claim 9, R^4 is defined to be methyl, however, the compound name on line 2 indicates "4-pentylthio" which is inconsistent with the definition of R^4. Further, the compound named in claim 9 is same as that of claim 10, which makes the claims duplicates. Appropriate correction of the name of the compound in claim 9 is suggested.
2. Claims 28, 30, 32 and 34 are independent claims and do not disclose Formula I in the claims. A claim to be complete must include all limitations within the claim or it should be written in dependent form. Further, the claims recite "a mammal that can be **usefully** treated" wherein the term "usefully" appears to be redundant.
3. In claim 44, R^4 is defined to be methyl, however, the compound name on line 2 indicates "4-pentylthio" which is inconsistent with the definition of R^4. Further, the compound named in claim 44 is same as that of claim 45, which makes the claims duplicates. Appropriate correction of the name of the compound in claim 44 is suggested.
4. Claim 62 recites "effective amount of a compound of **claim 1**", however, claim 1 is drawn to a method of treatment and therefore, claim 62 is not properly dependent. If this

claim is rewritten dependent from claim 36 which is drawn to a compound, then it will be a duplicate of claim 63.

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Levitt, U.S. Patent No. 4,892,946. The instantly claimed compounds read on the reference disclosed compound, see the compound 4-methoxymethyl-6-methylthio-2-amino-1,3,5-triazine in col. 17, line 19.

Claim Objections

Claims 1-8, 10-13, 39-43, 45-47 and 63 are objected to because they contain non elected subject matter. An amendment consistent with the election above would overcome the objection.

Claims 28-35 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and consistent with the election above.

Claims 9 and 44 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph and consistent with the election as above, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deepak Rao whose telephone number is (703) 305-1879. The examiner can normally be reached on Tuesday-Friday from 6:30am to 5:00pm. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Deepak Rao
May 19, 2002